Cow's milk allergy in children with neurological impairment and enteral nutrition

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Background

Children with neurological impairment often experience feeding difficulties and need enteral nutrition. Impaired motility and digestive-absorbing functions related to their underlying condition are common. If cow's milk allergy (CMA) occurs as a comorbidity, it is often misdiagnosed, due to symptoms overlap.

Case report

We report the case of a 13-year-old boy suffering from x-linked adrenoleukodystrophy with symptomatic epilepsy, spastic tetraparesis, dysphagia and adrenal insufficiency.

At 7 years of age, due to feeding difficulties, PEG was positioned and he started feeding with a semi-elemental enteral formula. Formula was well tolerated, with no symptoms except for chronic constipation and occasional abdominal pain.

At 13 years of age, to help relieving chronic constipation, he was given a hydrolysed formula containing soluble fibers. On the label, the formula reported "composed of small peptides" with no clear contraindications for CMA. However, after the first administration, the child experienced an anaphylactic reaction which required adrenalin injection. Tests for specific IgE were performed and resulted positive for milk and casein, confirming the diagnosis of CMA. Consequently, feeding with an elemental formula based on free amino acids was started, with symptoms resolution.

Conclusions

Many of the commercialized mixtures intended for enteral nutrition are composed of hydrolysed cow's milk proteins. However, the extent of hydrolysis is often not clearly specified, making them not suitable for CMA treatment. In children with neurodisabilities, when gastrointestinal symptoms persist despite the use of specific enteral formula, or in case of respiratory and/or dermatological symptoms, CMA should always be suspected.